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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,266	02/02/2001	Wayne Woodrow	205,011	9732

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EXAMINER
AUDET, MAURY A

ART UNIT	PAPER NUMBER
1654	

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/776,266	WOODROW, WAYNE	
	Examiner	Art Unit	
	Maury Audet	1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *25-30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☒ Claim(s) *22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

The Information Disclosure Statement filed June 27, 2001 has been considered. However, the Hofmann reference has not been considered as a translation was not provided. An initialed copy of Form PTO-1449 in accordance with MPEP § 609 is attached.

Election/Restrictions

Claims 1-30 were subject to restriction. In Paper No. 6, Applicant elected, without traverse to prosecute Group I, claims 1-24, drawn to a composition.

Objections

The disclosure is objected to because of the following informalities:

On page 1, line 13, use of the term "even" makes the sentence meaning unclear. It is suggested that the term "even" be replaced with "only", if appropriate.

Throughout the disclosure (and in claim 9) the term "oxitocin" is described; however, it is believed the correct spelling of the pharmaceutical compound is "oxytocin" (as the latter is found in medical dictionaries, and the STN/CAS database, but the former is not).

Appropriate correction is required.

Rejections

35 U.S.C. § 112, 1st

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a *pharmaceutical* composition, for medical administration, containing desmopressin acetate, to exist in solution without preservatives, and only degrade 2% and without microbial attack, assumedly due to the buffer-dominated solution; does not reasonably provide enablement for *any and all* small or medium sized peptides (see also § 112 2nd rejection above) or any "derivatives and analogues of [either] oxitocin and vasopressin" in any type of a composition without preservatives, to be useable as a pharmaceutical composition. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicants have described on specification page 6-8 that a *pharmaceutical* composition, for medical administration, containing desmopressin acetate, can exist in solution without preservatives, and only degrade 2% and without microbial attack. It can only be assumed this latter findings are a result of the buffer-dominated solution noted in the examples, because Applicant provides no reasoning behind these results, even thought the preservative has been removed. [However, the claims broadly describe that *any and all* small or medium sized peptides can basically exist in any composition, without preservatives, and still remain useable as a pharmaceutical composition. Applicants have not enabled such a broad scope.

Harris et al. teach that 50% of desmopressin had been adsorbed after a mere 24 hours when the preservative was removed. However, when the preservative was present, insignificant adsorption of desmopressin occurred (column 5, lines 57-61). Based on the highly unpredictable and complex nature of determining what peptides in pharmaceutical compositions would result in peptide adsorption and microbial breakdown, absent other systems that serve as protectors (i.e.

buffer/pH dominated); it would require undue experimentation without a reasonable expectation of success by one of skill in the art to determine whether any and all "small or medium sized" peptides would work in ANY composition, without preservatives, or even in the buffer-dominated solution that only desmopressin acetate was tested in.

35 U.S.C. § 112, 2nd ¶

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear what size range constitutes both a small or a medium sized peptide (and what large peptides are thus not contemplated within the metes and bounds of the invention)? The specification provides no description of the size range of the peptides falling within either size group, or those falling outside. Applicant must point out where in the specification it can be understood what the size peptide is encompassed within the invention, and what size is outside; otherwise the public cannot be certain as to infringement.

In claim 1, it is unclear what is meant by "preservatives"? Specification page 3 provides the only definition of "preservatives" wherein the term "embraces both, degradation inhibitors (like antioxidants or antimicrobial additives) as well as adsorption inhibitors (preventing adsorption of the active principle onto container walls)". The specification thus teaches that ANY compound capable of being an antioxidant or an antimicrobial is not within the present

invention; however, no examples of what compounds are included as adsorption inhibitors is provided, and it is thus unclear as to what Applicant regards as falling within this 2nd group of "preservatives".

In claim 2, similar to subsection b., it is unclear what is meant by "adsorption inhibitors"? The limited specification description is discussed above in subsection b. It is not known what constitutes the group of compounds capable of preventing active principle adhesion to container walls?

In claim 3, it is unclear, as claimed, what is meant by "degradation inhibitors"? The specification description listing "like antioxidants and antimicrobial additives" is discussed above in subsection b. Although Applicant precedes the phrase with "like", the only description is to antioxidants and antimicrobial agents. In order to remove indefiniteness, Applicant must distinctly claim "antioxidants and antimicrobial additives" within claim 3; because standing alone, it is unclear what degradation inhibitors are.

In claims 11 and 12, claim 12 (desmopressin acetate hydrate) is dependant upon claim 11 (mercaptopropanyl radical). It is unclear if claim 12 is capable of depending from claim 11, or if Applicant meant for claim 12 to be dependant upon claim 1? The specification does not indicate that desmopressin acetate hydrate has a mercaptopropanyl radical; nor does a search of the STN database. Therefore, absent evidence to the contrary, claim 12 could not depend from claim 11, since it would not contain all the limitations of claim 11; namely mercaptopropanyl radical.

In claims 19-24, it is unclear what meant by "an amount of an agent [sodium chloride] for controlling the osmolarity such that the osmolarity is kept at the physiologic values of the human plasma". It is unclear what "amount" is needed to maintain the osmolarity value, as no

support was found either in the claims or the specification. Applicant must point out where in the specification this "amount" is understood, or provide evidence (i.e. references) that this "amount" was easily determined by those skilled in the art at the time of the invention.

All other claims depend directly or indirectly from rejected claims and are, therefore, also rejected under USC 112, second paragraph for the reasons set forth above.

35 U.S.C. § 102: Anticipation

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-17 are rejected under § 102 (b), as anticipated by Harris et al.. (US 5482931).

Harris et al. teach a pharmaceutical composition containing a small or medium sized peptide (column 1, lines 6-8), or a pharmaceutically acceptable derivative thereof in aqueous solution (i.e. saline) and free from preservatives (i.e. adsorption and degradation inhibitors) (column 5, line 54 and 60) [Applicant's claim's 1-4]. Harris et al. teach that said peptide is cyclic and contains at least two sulfur atoms within the cyclus (claim 1; oxitocin and vasopressin (desmopressin) both meet these limitations) [Applicant's claims 5-8] Harris et al. teach that said peptide is selected from the group consisting of derivatives and analogues of oxitocin and vasopressin (claim 1); is desmopressin acetate (column 3, lines 18-19); has a pH between 3.5 and 6 (claim 4); a buffer selected from the group consisting of citric acid/disodium phosphate dihydrate and citric acid/trisodium phosphate dihydrate (column 3, lines 19-20; i.e. combination

of citric acid and disodium [hydrogen] phosphate); an osmolarity agent, namely sodium chloride (NaCl) (lines 21-24) [Applicant's claims 9—10, 12-18].

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1-10, 12-13, and 15-18 are rejected under § 102 (b), as anticipated by Bengtsson (US 5763398).

Bengtsson teach desmopressin acetate, 0.1 to 2.0 mg/ml, in an aqueous pharmaceutical composition (claim 1; "about 75 ul"=.75ml), which may include a buffer selected from sodium phosphates or sodium citrates to maintain a pH between 4 and 6, sodium chloride as the osmotic-pressure controlling agent (column 3, lines 33-11). [Note: Bengtsson teach that preservatives *may* be included, among other additives, but do not have to (column 3, lines 4-6); and as claimed the composition does not include a preservative (claim 1)].

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1-10, and 12-13 are rejected under § 102 (b), as anticipated by Krupin et al. (US 4853375).

Krupin et al. teach desmopressin acetate in an aqueous pharmaceutical composition (column 3, lines 7-19).

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1-11, and 13 are rejected under § 102 (b), as anticipated by Fredholt et. al. (Int. J. Pharm. 1999).

Fredholt et al. teach the use of [1-(mercaptopropanoic acid)-8-D-arginine vasopressin; dDAVP] in water, without preservatives, and in a pH range of 3.5 to 6.0 (abstract).

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1-8, 13, and 16-18, are rejected under § 102 (b), as anticipated by Florin-Robertsson et al. (US 5783559).

Florin-Robertsson et al. teach a pharmaceutical composition containing a small or medium sized peptide free from preservatives; cyclic, and containing at least two sulfur atoms in the cyclus (i.e. IGF-I, with three disulfide bonds, listed in STN/CAS-Registry File under chemical names "Insulin-like Growth Factor-I (human reduced), cyclic", or "Cyclic (6.fwdarw.47), (18.fwdarw.61), (48.fwdarw.52)-tris(disulfide) human IGF-I chemical name), with a pH between 3.5 and 6; osmolarity agent, namely sodium chloride (column 9, Example 5) [Applicant's claims 1-13, and 16-18].

Therefore, the reference is deemed to anticipate the instant claims above.

35 U.S.C. § 103 Obviousness

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. in view of Florin-Robertsson et al. (US 5783559) and Fredholt et. Al. (Int. J. Pharm. 1999).

Harris et al. is discussed above. Additionally, Harris et al. substantially teach the combinations of Applicant's claims 19-24. Namely, at least 0.02, 0.2 – .15, and .1 mg of desmopressin (column 3, line 18); at least 3 mg of a buffer, namely from 1 to 2.5 mg of citric acid monohydrate and from 2 to 5 mg of disodium phosphate dihydrate; an osmotic agent, namely sodium chloride (NaCl)(column 3, lines 17-24); and purified water (column 3, lines 56-57; although 1 ml water is not expressly taught by Harris et al., it is arguable that such an amount was in fact used or be intrinsically used in the composition without deleterious effects, since water is a neutral solvent, unless Applicant can show some unexpected result with the specific amount of 1 ml).

Harris et al. teach that any analogs of desmopressin may be used in the present invention. However, Harris et al. does not expressly teach use of a mercaptopropanol derivative. [Applicant's claim 11]

Fredholt et al. teach the use of [1-(mercaptopropanoic acid)-8-D-arginine vasopressin; dDAVP], which has a "selective antidiuretic effect" in water, without preservatives, and in a pH range of 3.5 to 6.0.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the desmopressin analog of Fredholt et al. as one of the analogs of desmopressin contemplated for use in Harris et al., because Fredholt et al. teach that [1-(mercaptopropanoic acid)-8-D-arginine vasopressin; dDAVP] has a selective antidiuretic affect, wherein greater receptor selectivity is a desired affect of pharmaceutical compositions.

Harris et al. teach the use of disodium phosphate dihydrate and citric acid monohydrate. However, Harris et al. does not specifically teach the use of trisodium citrate dihydrate. [Applicant's claim 21, 5 to 11 mg of citric acid/trisodium citrate dihydrate].

Florin-Robertsson et al. teach trisodium buffer 10.5 mg, teach the use of citrate buffers for protein stability (i.e. IGF, a small peptide, with 3 disulfide bonds) (column 5, Example 5), and specifically trisodium citrate dihydrate 10.5 mg. Florin-Robertsson et al. also teach the use of trisodium citrate dihydrate and disodium phosphate dihydrate.

However, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the trisodium citrate dihydrate buffer of Florin-Robertsson et al. in combination with the citric acid buffer of Harris et al. because Florin-Robertsson et al., like Harris et al., teach that trisodium citrate dihydrate may be used to effectively maintain the desired pH of a composition containing a peptide (like Harris et al.).

Harris et al. teach the use of purified water in the composition (column 3, lines 56-57). However, Harris et al. does not expressly teach the amount of water used, namely 1 ml. [Applicant's claims 19-24]

Florin-Robertsson et al. teach the use of 1 ml water for injection (i.e. a pharmaceutical injection) of a composition containing a peptide, buffers and osmolarity agent at a specific pH.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the specific amount of 1 ml of water in the pharmaceutical composition of Harris et al. because 1 ml is a standard amount of water/saline to work as a solvent for transfer of a pharmaceutical composition by injection.

Harris et al. teach the use of 2.25 to 2.65 mg of disodium phosphate dihydrate (column 3, line 21). Harris et al. does not specifically teach the use of 3 mg of disodium phosphate dihydrate. [Applicant's claims 23-24]. However, Harris et al. do not indicate any certain amount thereof provides an unexpected result; as long the amount selected maintains the desired pH.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to slightly adjust the mg amount of this buffer as long as it would maintain the desired pH; the latter being the purpose of the different buffers of the present invention. See also, MPEP section: ranges, not crucial; site section. See 2144.05 Obviousness of Ranges, specifically subsections I. Optimization of Ranges and II. Rebuttal of Prima Facie Case of Obviousness; and caselaw associated therewith.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bengsston (5763398) in view of Harris et al. in view of and Fredholt et. Al. (Int. J. Pharm. 1999) and Florin-Robertsson et al. (US 5783559).

The teachings of Bengsston are discussed above.

Bengsston teach that any salts (i.e. analogs) of desmopressin may be used in the present invention (column 3, line 17). However, Bengsston does not expressly teach use of a mercaptopropanol derivative. [Applicant's claim 11]

Fredholt et al. teach the use of [1-(mercaptopropanoic acid)-8-D-arginine vasopressin; dDAVP], which has a "selective antidiuretic effect" in water, without preservatives, and in a pH range of 3.5 to 6.0.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the desmopressin analog of Fredholt et al. as one of the analogs of desmopressin contemplated for use in Bengsston, because Fredholt et al. teach that [1-(mercaptopropanoic acid)-8-D-arginine vasopressin; dDAVP] has a selective antidiuretic affect, wherein greater receptor selectivity is a desired affect of pharmaceutical compositions.

Bengsston et al. teach a buffer selected from sodium phosphates or sodium citrates to maintain a pH between 4 and 6 (column 3, lines 33-11). Bengsston et al. does not specifically teach citric acid/disodium phosphate dihydrate/trisodium citrate dihydrate combinations. [Applicant's claims 14, 19-24].

Harris et al. teach the use of disodium phosphate dihydrate and citric acid monohydrate.

Florin-Robertsson et al. teach trisodium buffer 10.5 mg, teach the use of citrate buffers for protein stability (i.e. IGF, a small peptide, with 3 disulfide bonds) (column 5, Example 5), and specifically trisodium citrate dihydrate 10.5 mg. Florin-Robertsson et al. also teach the use of trisodium citrate dihydrate and disodium phosphate dihydrate.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the buffer combinations and mg levels of Harris et al. and Florin-

Robertsson et al. in combination with the citrate and phophate buffers of Bengsston, because Harris et al. and Florin-Robertsson et al. teach that their respective buffers may be used to effectively maintain the desired pH of a composition containing a peptide; and routine optimization with known buffers would be within the skill of one in the art.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Florin-Robertsson et al. (US 5783559) in view of Harris et al. in view of and Fredholt et. Al. (Int. J. Pharm. 1999).

The teachings of Florin-Robertsson are discussed above.

Florin-Robertsson et al. teach the use of trisodium citrate dihydrate and disodium phosphate dihydrate. However, Florin-Robertsson et al. does not specifically teach either with "citric acid". [Applicant's claims 14-15].

Harris et al. teach the use of citric acid and disodium phosphate dihydrate to maintain a pH between 4 and 6 of composition containing a small or medium sized peptide, without a preservative.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the citric acid of Harris et al. with the trisodium citrate dihydrate

and disodium phosphate dihydrate of Florin-Robertsson et al., because Harris et al. teach that citric acid and disodium phosphate dihydrate is able to optimally maintain the pH between 4 and 6 of peptide composition containing identical other components.

As discussed above, Florin-Robertsson et al. teach the use of small and medium sized cyclic peptides containing at least two sulfur atoms within the cyclus; namely IGF-I; in a pharmaceutical composition; with water, buffers (trisodium citrate dihydrate and disodium phosphate dihydrate) and an osmolarity agent (sodium chloride); and without preservatives (column 9, Example 5). Although Florin-Robertsson et al. is drawn to IGF-I, the authors also teach generally that it would facilitate the use of any pharmaceutical peptide if it could be produced in a more stable solution with prolonged storage capabilities (column 2, lines 18-21) and specifically teaches that research was also being conducted into stabilizing mediums for the peptide desmopressin (column 2, lines 26-29). However, Florin-Robertsson et al. does not specifically teach the use of analogues and derivatives of the similar peptides, desmopressin and oxytocin. [Applicant's claims 9-11]

Harris et al. broadly teach the use of buffer dominated stabilizing composition, without preservatives, that may be used as a solution for any small or medium sized peptide, and more specifically a peptide selected from the group consisting of derivatives and analogues of oxitocin and vasopressin (claim 1); and specifically desmopressin acetate (column 3, lines 18-19) Fredholt et al. teach the use of [1-(mercaptopropanoic acid)-8-D-arginine vasopressin; dDAVP] in water, without preservatives (abstract).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the derivatives and analogues of oxitocin and vasopressin and

specifically desmopressin acetate of Harris et al., and the mercaptopropanyl radical of Fredholt et al., as the peptides in the composition of Florin-Robertsson et al.; because Harris et al. teach that a nearly identical buffer-dominated solution as Florin-Robertsson et al. (other than routine optimization of ranges/equivalent buffers), without preservatives; may be used for ANY small or medium peptide (i.e. IGF-I), as well as derivatives and analogues of oxitocin and vasopressin.

Florin-Robertsson et al. teach the use specific ranges for the IGF-I and buffers used in the pharmaceutical compositions therein (column 9, Example 5). However, Florin-Robertsson et al does not teach the specific ranges of desmopressin, or the citric acid monohydrate/disodium phosphate dihydrate/trisodium citrate dihydrate combinations [Applicant's claims 19-24]. However, Florin-Robertsson et al. does not indicate that any certain buffer amount provides an unexpected result; as long the amount selected maintains the desired pH; and Applicant does not indicate that any certain mg range of desmopressin is required in the composition, other than the therapeutic ranges well known in the art for desmopressin.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to find the therapeutic ranges of the buffer through routine optimization of the range levels, and found the therapeutic range of desmopressin in any physician desk reference to arrive at the composition of the present invention. See also, MPEP section: ranges, not crucial; site section. See 2144.05 Obviousness of Ranges, specifically subsections I. Optimization of Ranges and II. Rebuttal of Prima Facie Case of Obviousness; and caselaw associated therewith.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention.

Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maury Audet whose telephone number is 703-305-5039. The examiner can normally be reached from 7:00 AM – 5:30 PM, off Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached at 703-306-3220. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-1234 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

MA
May 13, 2003

CHRISTOPHER R. TATE
PRIMARY EXAMINER